

OBSERVATIONS

CONCERNING THE

NATURE

AND DUE

METHOD

Of Treating the

GOUT,

For the Use of my Worthy Friend,

RICHARD TENNISON, Esq;

Together with an Account of the

NATURE and QUALITIES

OF THE

BATH WATERS.

By *GEO. CHEYNE, M.D. & F.R.S.*

L O N D O N :

Printed for G. STRAHAN, at the *Golden Ball*, over
against the *Royal Exchange* in *Cornhill*; W. MEARS,
at the *Lamb* without *Temple Bar*, and H. HAM-
MOND, at the *Bath*. 1720.





ADVERTISEMENT
TO THE
READER.

 *HIS small Treatise was originally intended for a private Paper of Instructions to the GENTLEMAN, whose Name it bears, to direct Him how to manage himself under the Gout. It is, indeed, an Abstract of a larger one, on the same Subject,*
A 2 *which*

which has lain by me these seven
 Years; which, yet, I have not
 had Leisure or Humour to finish.
 Several Copies of this having got
 Abroad, and the pitiful Condes-
 cendence of Pyrating Booksellers,
 even to such Trifles as these,
 have constrain'd me to let it come
 out in Print, as it is, to pre-
 vent its coming out from them.
 The Gentlemen of the Profession
 may easily perceive, by the Gross-
 ness of the Philosophy, and the
 low Detail of the Pharmacy, it
 was not design'd for them. If
 any shall think fit to dispute or
 criticise on the Doctrine here
 laid down, they may do it secure-
 ly, as if the Author were as much
 dead, as these his Labours will
 shortly be: I hope I know the
 Value

Value of Time and Pains, and the Vanity of all Human Speculations better, than to employ them in defending such Trifles. All I undertake for them, is, That the Facts may be depended upon for their Truth. And the Method and Medicines for their Efficacy, towards the End, in the Circumstances propos'd. If any Person under them, shall either amuse himself, by reading this Paper; or lighten his Pain, by following its Directions, I shall have obtain'd all I propos'd by it.

As to the Account of the Bath Waters given here, it came naturally in the way of my Subject; and is such as the Observations I have made suggested to me. I scarce know,

know, and have taken no Notice of what others may have written or observ'd on these Waters; nor, indeed, had it been possible for me, in my present Situation, being without my Books, and confin'd to Bounds, by the Nature of my Design. I have often observ'd, with Admiration, the Wisdom and Goodness of Providence, in furnishing so wonderful an Antidote, to almost all the Chronical Distempers of an English Constitution and Climate, which are chiefly owing to Errors of Diet, or rather, as a Sacred Writer expresses it, To Idleness and Fulness of Bread. The Rankness of the Soil; the Richness of the Provisions; the living so much on Flesh Meats; the Inconstancy of the Weather, and the

(v)

the indulging in sedentary Amusements, or speculative Studies, directly leading thereto. To Remedy all which, kind Heaven has provided Bath Waters as the most Sovereign Restorative in all the Weaknesses of the Concoctive Powers.

BATH, July 1719.



SOME

(v)

The following is a list of the
names of the persons who
were present at the meeting
held on the 1st of January
1900 at the residence of
Mr. J. H. Brown, 123
Main Street, New York
City.

T H E

CONTENTS.



THE Introduction.

Page 1. §. 1.

That the reason why, of two Persons in all other Circumstances the same, the one has the Gout, the other is free from it, is, That the small Vessels of the Gouty Person in their original Conformation are narrower and more stiff than those of the other. p. 2. §. 2.

That the Cause of an acquir'd Gout in the first Person, or those born of sound Parents; is the abundance of Tartarous, Urinous, or other Salts introduc'd into the Blood by the Food. p. 3. §. 3.

Hence we learn the reason why, on the first Attacks of the Gout, in otherwise healthy People, the Humours generally fall on the Joints of the Limbs. p. 4. §. 4.

Hence we may likewise see the reason, why the first Fits enrage and remit once in twenty four Hours: why the whole Fit lasts fourteen Days; and lastly, why the Accesses and Remissions of those broken with the Gout, happen only in fourteen Days: And why the whole Duration in such is made up of several such Accesses and Remissions. p. 5. §. 5.

The Contents.

Hence we may discover the reason why Gouty Persons are People of good natural Parts, large Feeders, and long-liv'd. p. 6. §. 6.

Hence we may conclude, that a Fit of the Gout is an Effort of Nature to throw off this abundance of Salts, through the more stiff and narrow Strainers; or we may consider it as a Crisis of a putrid Fever, where the noxious Humour is discharg'd on some of the Muscles or Joints. Ibid. §. 7.

Hence we may discover the Vanity of all Pretenders to an universal and certain Remedy for the Gout. p. 9. §. 8.

Hence there can be but two direct ways of treating the Gout; one by widening the Capacities of the small Vessels; the other by lessening the Quantity of the Salts. Ibid. §. 9.

The Difference between Hereditary and Acquir'd Gouts. p. 10. §. 10.

From hence is concluded the Necessity of a much more strict Management in an Hereditary than in an Acquir'd Gout. p. 11. §. 11.

The Advantages of Labour and Exercise in the Gout; to which however, two Conditions must be added: 1. That it be not too violent: 2. That a moderate Diet be joined to it. Ibid. §. 12.

Two ways of lessening the Quantity of Salts in the Blood. The first by a Vegetable Diet, and the Inconveniencies thereof. Cornaro's Diet recommended. p. 13. §. 13.

The other way is by Evacuations in the Intervals, and by a gentle slow Perspiration in the Fits. p. 15. §. 14.

The.

The Contents.

The Secondary Methods of relieving the Gout are two: 1. Dilution by proper Liquids, such as Bath and German Spaa Water, or other Chalybeate Waters; Dwarf Elder Tea, Trifoil Tea, light, quick Green Tea, small Spicy Bitters on Water, and the like. p. 17. §. 15.

2. Strengtheners of the Instruments of Digestion: The Peruvian Bark especially; where its Virtues and Qualities are explain'd. p. 18. §. 16.

The Advantages of Mercurial Medicines in the Gout consider'd. A Salivation will banish the Gout for some time; but then it tears and rends the small Fibres, whereby the future Fits become more painful and obstinate. p. 20. §. 17.

The Method by which one is to treat himself under the Fit, in its beginning, middle and end. p. 23. §. 18.

Opiats not to be given in the Gout, but in the last Extremity; with two ways of ordering Forms of such Medicines. p. 25. §. 19.

The manner of treating the Gouty after the Pain is over: Stomach Purgers first, then Asses Milk is recommended; and lastly, Spaa or Bath Waters with Aromatick Bitters. p. 27. §. 20.

Rhubarb recommended as an excellent Preservative from the Gout, taken in the Intervals of the Fits; with the Reasons thereof. p. 28. §. 21.

The manner of using Rhubarb, with other succedaneous Purgatives, in case of its disagreeing. p. 30. §. 22.

Sulphur, and its Flowers recommended as the most noble of all Medicines, for the Cure of the Gout, with the Reasons thereof; its Nature

The Contents.

and Qualities, and the manner of using it
p. 32. §. 23.

Several Diluters recommended, especially a weak Decoction of the Bark of the Root of Sarsa; with Observations on Roscelli's Drops; and the Famous Pox Doctor's Medicines. p. 37. §. 24.

Drinking freely of light, clear Spring Water of great use after Intemperance in Gouty Persons.
p. 40. §. 25.

Bath Waters the best of all Diluters in the Gout. The Nature, Cause, and Original Principles of Bath Waters, to wit, Steel and Sulphur. Æthiops Mineral recommended: The Diseases where 'tis proper; and the manner of using it.
p. 42. §. 26.

That there is a greater Proportion of Steel in Bath Waters, than is discoverable by the Senses or common Experiments: A Comparison between these and the other European hot Waters; with the manner how Bath Waters are generated.
p. 48. §. 27.

The Reasons why the Bath are such an excellent Remedy in the Gout, and other Chronical Distempers. p. 51. §. 28.

Bathing in the hot Baths in the Intervals of the Gout recommended. p. 53. §. 29.

The Nature of Contraction and Relaxation of Animal Fibres; and how Bath Waters come to cure both. p. 55. §. 30.

The other Chronical Cases and Disorders whereof the Bath Water is an absolute Cure, or a powerful Relief. BATH recommended as the fittest Place in Britain for weak tender People
to

The Contents.

- to spend their Lives in, with the Reasons thereof.* p. 56. §. 31.
- The Necessity of preparing the Body, before and after a Course of Bath Waters: As also of joining Specifick Medicines with them in Chronical Cases.* p. 58. §. 32.
- The Quantity of Bath Waters to be drunk daily. That a less Quantity ought to be drunk daily than is usual; and a longer Time allow'd for drinking them. Of the Afternoon and Night Doses.* p. 60. §. 33.
- A Comparison between Gouty Chalk-Stones and Gravel-Stones. That those who are severely treated by the Gout, seldom fail to have the Stone or Gravel. The Cause of the Stone and Gravel in general. Cyprianus his Observation on those who drink Malt Liquors. That the Methods that cure the Gout, will prevent the Gravel's increasing.* p. 64. §. 34.
- How the Gout in the Head is to be treated.* p. 68. §. 35.
- After what manner the Gout in the Stomach is to be treated.* p. 70. §. 36.
- How the Gout in the Guts is to be treated.* p. 71. §. 37.
- The Difference between Humourous and a Nervous Gout. That White-Wine is better than Red in the Fit, and Red better than White in the Intervals; but that nothing but inveterate Custom makes either necessary.* p. 72. §. 38.
- Of Cold Bathing in general: Its Use to strengthen after a Fit of the Gout.* p. 73. §. 39.

The Contents.

Of Nervous Distempers in general; and of the Nervous Gout in particular. Of the Nature of Nervous and Elastick Fibres. Of Hypochondriac, Hysterick and Nervous Disorders. p. 78. §. 40.

The Method of Treating Nervous Gouts and other Nervous Distempers. Vomits preferr'd to Purges in weak Nerves. The Bark recommended in all such Cases; but with some Limitations. p. 82. §. 41.

The only Difficulty, grounded on any Probability, against the Bark, answer'd. The true State of the Distinction between Vernal and Autumnal Agues. p. 85. §. 42.

Of the true and infallible Cure of the genuine Sciatica, or Hip Gout. A Detail of the whole Method and Medicines, with the Reasons of their Virtue and Efficacy in this Case. p. 88. §. 43.

Of Topicks or outward Applications in a Fit of the Gout; and of Symptomatic Gouts. p. 92. §. 44.

TEMPERANCE and Abstemiousness recommended, as the only Cure or certain Relief in the Gout. p. 96. §. 45.

ERRATA.

THE Reader is desir'd to mend these two Mistakes.
Page 20. line 6. for *Guerema* read *Quercina*. p. 48. l. 8.
for *Peach* r. *Pearl*.



SOME SHORT
OBSERVATIONS
Concerning the due
METHOD
Of Treating the
GOUT, &c.

- I.  Designing this Paper for the Instruction and Relief of my particular Friend, I shall only make such Observations, as directly tend to that Purpose; Passing by all *Theories* of the Distemper, as
- B far

far as is consistent with giving the Reason of my Opinions. For after having laid down two *Propositions* (which will be found the Principles of my Reasoning through this Discourse) I proceed to the Observations themselves.

II. *Prop.* 1. Of two Men having all other Circumstances alike, as near as may be; Of the same Parents; Born Healthy; Of the same Stature, Complexion, Diet, Air, Exercise, &c. It seems to me impossible to assign a solid Reason, why the One shou'd be afflicted with the *Gout*, the Other be absolutely free from it, but this, That the* smallest Vessels of the *Gouty* Person must be in their natural † Conformation narrower and more ‡ stiff, than those of the Other, who is free from the *Gout*, in respect of their common Stature and Size. For thereby the Crude and Gross Humours, which are confin'd, or pass with Pain, in the *Gouty* Person, will easily flee off by

* *Capillaries.*

† *Make.*

‡ *Tense.*

Perspiration, and the other Drains of the Body, in the Person free from the *Gout*.

III. *Prop. 2.* The Cause of an Acquir'd *Gout* in the first Person, or in those born of sound Parents, seems to me, to be the Abundance of Tartarous, Urinous, or other Salts, introduc'd into the Blood by the Food. Salts seem neither to perish, nor to be begotten; but to be constant and incorruptible Parts of Animal and Vegetable Bodies. The Delicacy and Flavour of Flesh and Fish, is entirely owing to their abounding with a fine, soft, oily, or urinous Salt, as is evident in Venison and Wild Fowl. Wines, of all kinds, have a greater or lesser Quantity of Tartar in them: And other strong Liquors abound in their peculiar Salts, in Proportion to their Strength. Spirits are nothing but a great Quantity of Vegetable Salts crowded together in a little Water and Oyl. These Salts receiv'd in abundance, but neither sufficiently broke by

the Digestive Powers, nor driven out of the Habit by due Exercise; but by their Plenty and Nearness, uniting in greater Clusters, must necessarily form Obstructions, and give Pain, when, by the Force of the Circulation, they are thrust through narrower and stiffer * small Vessels. Nothing either receiv'd or bred within the Body, besides these Salts, can account for this Difference.

IV. *Coroll.* 1. Hence we may learn the Reason why, on the first Attacks of the *Gout*, in otherwise healthy People, the Humours generally fall on the Joints of the Limbs: Because, in the Joints, the smallest Vessels are more compress'd, by the larger Heads or Protuberancy of the Bones, and are thereby render'd narrower and more readily obstructed. These Obstructions fall on the Joints of the Limbs; because of the greater Length of these small Vessels, between the Heart, the Origin of the Motion of all

* *Capillaries.*

the

the Fluids, and these Joints; their other Extremity: Whereby the Quickness of the Circulation diminishing, Obstructions are there more readily form'd.

V. *Corroll.* 2. Hence likewise we may see the Reason, why the first Fits, of otherwise healthy Persons, Enrage and Remit once in Four and twenty Hours. The * Access being at Sun-set, and the † Remission about Day-break. Why the whole Fit in such lasts about Fourteen Days. And lastly, why the particular Accesses and Remissions, of Persons advanc'd in Years, and broken with the *Gout*, happen only once in Fourteen Days. And why the whole Duration of the Fit is made up of several such Accesses and Remissions in equal Times. In the first Stages of the *Gout*, the Fluids being less Sisy and Glutinous, their Salts and Siziness are sooner broken and dissolv'd, by the Action of the Solids in the Circulation; and are there-

* *When it begins to enrage.*
to be easier.

† *When it begins*

by

the Digestive Powers, nor driven out of the Habit by due Exercise; but by their Plenty and Nearness, uniting in greater Clusters, must necessarily form Obstructions, and give Pain, when, by the Force of the Circulation, they are thrust through narrower and stiffer * small Vessels. Nothing either receiv'd or bred within the Body, besides these Salts, can account for this Difference.

IV. *Coroll.* 1. Hence we may learn the Reason why, on the first Attacks of the *Gout*, in otherwise healthy People, the Humours generally fall on the Joints of the Limbs: Because, in the Joints, the smallest Vessels are more compress'd, by the larger Heads or Protuberancy of the Bones, and are thereby render'd narrower and more readily obstructed. These Obstructions fall on the Joints of the Limbs; because of the greater Length of these small Vessels, between the Heart, the Origin of the Motion of all

* *Capillaries.*

the

the Fluids, and these Joints; their other Extremity: Whereby the Quickness of the Circulation diminishing, Obstructions are there more readily form'd.

V. *Corroll.* 2. Hence likewise we may see the Reason, why the first Fits, of otherwise healthy Persons, Enrage and Remit once in Four and twenty Hours. The * Access being at Sun-set, and the † Remission about Day-break. Why the whole Fit in such lasts about Fourteen Days. And lastly, why the particular Accesses and Remissions, of Persons advanc'd in Years, and broken with the *Gout*, happen only once in Fourteen Days. And why the whole Duration of the Fit is made up of several such Accesses and Remissions in equal Times. In the first Stages of the *Gout*, the Fluids being less Sisy and Glutinous, their Salts and Siziness are sooner broken and dissolv'd, by the Action of the Solids in the Circulation; and are there-

* *When it begins to enrage.*
to be easier.

† *When it begins*

by

by sooner brought into a Condition to be carry'd off by Perspiration; which makes an Access and a Remission. The greater Weight and Grossness of the Air (which hinders Perspiration) at Sun-set, beyond what it is at Day-break, together with the particular Degree of Sickness, seems to determine the Times. The greater Degree of Sickness in the Fluids, of People advanc'd in Years, and broken with the *Gout*, lengthens out the Duration of these Accesses and Remissions. And the precise Period of Fourteen Days, seems to arise from the special Nature of the Sickness of the Fluids; and its Resemblance to that of a Regular intermittent Fever. The whole Duration of whose Fits put together, *Sydenham* has observ'd already, to be equal to Fourteen Days. But the particular Explication of all these Things, wou'd require more Room than can be allow'd them, in the Bounds I have prescrib'd to my self. My Friend, if he pleases, may consult *Bellini* on this Head.

VI. *Coroll.* 3. Hence we may discover the Reason of the common Observation, that Gouty Persons are People of good Natural Parts, large Feeders, and long-liv'd: Because the Fibres of the smallest Vessels, being more stiff and springy than ordinary, the Circulation is brisker, more full, and free: whereby the * Natural Functions are more readily and regularly perform'd; and therein the best Health and truest Sensations consist: Strong Health requires liberal Supplies; and both together lengthen out Life.

VII. *Coroll.* 4. From these also, we may discover what a Fit of the Gout is, to wit, An Effort of Nature, to throw off this Abundance of Salts, through more stiff and narrow † Strainers. Salts of all Kinds are more or less ‡ Burning: The Urinous most of all, as is evident from *Spanish Flies*, and that unextin-

* *That is Eating, Digesting, and Evacuating, &c.*

† *Secretory Ducts.* ‡ *Caustick.*

guishable

guishable Substance, call'd the *Phospheros*, so readily and plentifully to be had from Human Urine. (The Reason of which may be from their pointed Figure, piercing more readily, by its being besmear'd with a light Oyl: Or from their greater attractive Force; or from some other Quality, not yet, or perhaps never to be discover'd.) What is certain is this, That Persons of a large Appetite, as *Gouty* Persons generally are, feeding plentifully of Flesh and Fish, and drinking liberally of generous Wines, or other strong Liquors, and using, either too little, or too much Exercise, must necessarily overstock their Blood with these fix'd and incorruptible Parts of Animal and Vegetable Bodies; which in their Nature being Hard and Burning, can't fail, first, to raise a Tumult and Fever; and then to give violent Pain, as they are driven out of the Habit, through more stiff and narrow small Vessels, by the Force of the Circulation: So that a Fit of the *Gout* may be consider'd, as a *Crisis* of a putrid Fever, wherein

wherein the noxious Humour is thrown upon some of the Muscles or Joints of the Body.

VIII. *Coroll. 5.* Hence we may discover the Vanity of the Pretenders, to a certain and universal Remedy for the *Gout*. For unless a Remedy could be found, which at once cou'd change and new-mould the solid Parts of Human Bodies; alter the Nature and Qualities of Animal and Vegetable Bodies; and destroy Parts, that are in their own Nature fix'd and permanent, it is impossible it shou'd be certain and universal; and how possible such a Remedy is, I leave every one to judge.

IX. *Coroll. 6.* Hence it is evident, there can be only two direct Ways of Treating the *Gout*, with any Prospect of Success. The one is, by stretching and widening the Capacities of the small Vessels, and * relaxing their *Fibres*.

* *Slackning.*

The other is, by lessening the Quantity of the Salts introduc'd into the Fluids by the Food; these being the two Antidotes or Opposites to the two fundamental Causes of acquir'd *Gouts*.

X. Here it may be convenient to take notice of the Difference between hereditary and acquir'd *Gouts*. The latter is produc'd in a Person, otherwise sound, from Ignorance or Negligence of the exact Rules of living. For tho' there be a natural Configuration of Parts, that disposes one Man more than another to the *Gout*; yet there might be a Method of Diet order'd, which shou'd prevent it. The former is a * Taint (compounded perhaps of Scurvy, Stone and Pox) transmitted to the Patient with the Principles of Life, together with a Disposition in this Taint, to unite it self to any Malignity, introduc'd into the Habit, through Excesses.

* *Stain.*

XI. Co-

XI. *Coroll.* Hence we may observe the Necessity of a much more strict and careful Management, in hereditary *Goutts*, than what is necessary in acquir'd ones. In the first, the *Goutty* Humour is ingrain'd and transubstantiated into the Solids, and other Principles of Life, and impossible to be rooted out by human Art and Industry: The most that can be done is, to lessen and relieve the Symptoms. Whereas in acquir'd *Goutts*, the noxious Humour being more confin'd to the Fluids, a proper Diet, due Exercise, and a few well-chosen Remedies, may go a great way; if not to a perfect Cure, yet to make Life tolerably easy under them.

XII. Of all those things that a *Goutty* Person can safely undertake for his Health, wisely manag'd Exercise, seems that alone, which can best answer one part of the first Intention, *viz.* The widening the Capacities of the small Vessels. Labour or Exercise assists the

Gouty three different ways: *First*, as it increases the * Motion of the Parts of the Fluids among themselves; so that their Salts, by their † striking one against another, are broken and made less, that they may pass more readily through the small Vessels. *Secondly*, as it adds a new and *foreign* Force to the Blood, and thereby promotes its Circulation from the Heart through the small Vessels; driving some of the grosser Parts of the Fluids through them, which in the ordinary Course of the Circulation wou'dn't pass so freely; and thereby opening their Obstructions and enlarging their Capacities. *Thirdly*, as it increases the natural Perspiration; the Action of the Muscles in Labour and Exercise, and the Spring of the Solids by their multiply'd Efforts, squeezing the Strainers of all their Contents. But to make Labour and Exercise as useful as they may be, two Cautions must be added to them: *First*, that they be

* *Intestine Motion.*

† *Collision.*

not too violent, in respect of the Patient. For too violent Exercise will, necessarily, either spend the Spirits, whereby the Digestions and Circulation will be impair'd; and so a regular *Gout* be brought into an irregular one: Or by shaking all the *Gouty* Salts at once upon the Extremities, a regular Fit will be forc'd out; which, in less violent Exercise, might have been spent by Perspiration. *Secondly*, that Moderation in eating and drinking be join'd to it; For commonly *Gouty* Persons are large Feeders; and Exercise emptying the Stomach, the Guts and small Vessels, if the Appetite be satisfy'd to its Craving, the Evil is rather increas'd than diminish'd thereby.

XIII. There be two direct Ways of lessening the Quantity of the Salts, which produce the *Gout*. The first is, by a total Abstinence from, or a great Abstemiousness in Flesh, Fish and strong Liquors, which introduce those Salts into human Fluids. But this Course is
never

never to be undertaken, but with great Caution, and in the last Extremity: For these two Reasons; *First*, because an entire Vegetable Diet weakens all the digestive Powers, and all the Functions of Life; impoverishes the whole Mass of the Fluids; impairs the Strength, and dispirits the Man: And thereby necessarily begets the worst kind of Hysterical and Hypochondriacal Disorders, and all their black and dismal Consequences (at least till the Body has been long accusom'd to it) which is a Disease far worse than the *Gout* it self: And to which the *Gout* only brings the Patient, in its last and fatal Stages. *Secondly*, because this Diet, once enter'd upon, is never after to be chang'd, under the Danger of certain Death, or the most violent enraging of all the *Gouty* Symptoms. For a Vegetable Diet, as has been just now hinted, weakening the Digestive Powers, and all the Functions of Life, &c. the Patient can never after be brought to bear with a free way of living, without the Hazard
of

of certain Death, or a violent enraging of the *Gouty* Symptoms; as is too plain from many * fatal Instances. If any Diet is ever to be try'd in the *Gout*, it is to be order'd in *Cornaro's* Method; that is, by living on the white Foods; eating Flesh and Fish of the lightest Digestion, and drinking generous, unmix'd Wines, both of them in small, and constantly equal Quantities; in Weight and Measure; under the Craving, of the Appetite, and proportion'd for the mere Support of Life.

XIV. The other direct way of banishing the Salts out of the Habit is by Evacuations. *Sydenham*, otherwise a most accurate Observer of Nature, and a most judicious Practitioner, has been the Occasion, I think, of a great Mistake in the Management of the *Gout*; by forbidding almost all Evacuations, either in the Fit, or in the Intervals, for fear of weakening the Constitution.

* *Vide* the Life of the P. of Conde.

There

There are two Seasons, to wit, Spring and Fall, when the Periodical Fits of regular *Gouts* commonly happen; which I consider as Cardinal and Critical Discharges, under general and mechanical Influences, for purifying the Blood, and discharging the *Gouty* Salts: In which Nature is no more to be disturb'd in its Operations (I mean as to Purging, for even then a gentle, slow, constant and uniform Perspiration and Breathing Sweat may be promoted, not only safely, but with great Advantage) than in the Monthly Purgations of the Sex. But in light, flying Touches of the *Gout*, out of these Seasons; and in the Intervals of the Fits, gentle, warm, stomachick Purgers will be an excellent Remedy to send these a going, to lessen the Fits, and lengthen the Intervals. A Person out of the Pain and Inflammation of the Fits, and in their Intervals (except his natural Disposition to breed another Fit) is, to all Intentions of Medicines, the same as a well Person. And all Medicines levell'd against other Diseases

Diseases incident to human Bodies, may be as safely administer'd to a *Gouty* (regard being had to his particular Constitution) as to any other Person. Wherefore, the general and direct Methods of relieving the *Gout*, are, In the Fits, a gentle, uniform, continu'd Perspiration and Breathing Sweat. In the Intervals, Labour or Exercise, and gentle, Stomachick Purgers.

XV. The Secondary or less direct Methods of relieving the *Gout*, are principally these two, *First*, Dilution, by proper Liquors. *Secondly*, Strengtheners of the Instruments of the Digestion. Nothing is more likely to thin the Blood; to dissolve and break the Salts, and keep them at a distance from running into Clusters, than proper Diluters; as we see in Fevers, Rheumatisms, and other inflammatory Distempers. For this Reason, among others, it is, that *Bath* and *German Spaw Waters*, and all other *Mineral Chalybeat Waters*;

D

Dwarf-

Dwarf-Elder Tea; Trifoil Tea; light, quick, Green Tea; small spicy Bitters on Water, and such like, drunk freely, Blood warm, on an empty Stomach, become so useful in Intervals of the *Gout*. Water is the universal Dissolvent of Salts of all sorts; and being replenish'd with the spicy, bitter and active Parts of other Bodies, it strengthens the Stomach and Bowels; breaks and dissolves the Salts; cleanses the insides of the Vessels from the Foulness that constantly adheres to them, and carries it out of the Body, by increas'd Perspiration and Urine.

XVI. Strengtheners of the Instruments of Digestion, are an excellent Remedy in the Intervals of the *Gout*. If the Digestions be true and good; the Parts of the *Chyle* be made sufficiently small, and the Circulation be full and compleat (all which are the common Effects of Stomachick Medicines) the Salts will be less; the Obstructions of the
small

small Vessels fewer, and the Impurities of the Fluids will more easily pass by Perspiration, and the other Drains of the Body; and so the Fits of the *Gout* become more easy, and less frequent. Among all the Strengtheners of the Digestions, I wou'd recommend a strong Infusion of the *Jesuit's Bark*, in generous Claret, as being the coolest Bitter, the most powerful Strengthner of relax'd *Fibres* in the Instruments of Digestion; and the greatest Antidote of the urinous Salts, especially if join'd with *Chalybeats*, and some Qualifiers of its mawkish and nauseous Taste. The Bark has the same Effect on the Coats and *Fibres* of the Vessels, that Oak Bark has on raw Leather; and the same Effects on the Fluids to prevent their Coagulation; and to render them uniform, that the *Testaceous* Powders have on Vinegar, or as they have on Milk, to prevent its Curdling: But more especially, as it produces such Wonders on the Solids and Fluids in intermittent

Fevers; to the State and Condition of both which, the Solids and Fluids of *Gouty* Persons bear so near a Resemblance, as has been observ'd in *Coroll. 2.* Wherever the Bark is proper, I recommend the *Glans Guercma*, or Acorn, as of the same Class of Medicines, and in some Cases of Relaxation exceeding the other. It is cool and easily digested. But they do best united. All bitter and spicy Medicines have more or less of the same Quality; but heat the Body more, and brace the *Fibres* less.

XVII. *Mercury*, by its Weight, and its constantly forming it self in little Spheres (or perhaps from its greater attractive Force) throughout all its possible Divisions, seems to offer fairest, of any internal Medicine, for breaking the *Gouty* Salts; for relaxing the *Fibres*; and enlarging the Capacities of the small Vessels. And the Fact is, that by a full and free Salivation *Gouty* People have

have been freed from all its Symptoms for several Years. But it is also Matter of Fact, and Experience, that a full and free Salivation does so break, rend and tear all the smallest, tenderest and finest Vessels and *Fibres*, that the Body becomes in a worse State, in respect of the future Fits, than it would have been in several Years time, under the common Symptoms. For tho' a Salivation may open all the Obstructions of the small Vessels; cleanse their insides from the Foulness that cleaves to them; purify the Blood, and break its saline Impurities; yet by its great Weight, and the excessive Force it adds to the Blood, rending and tearing the finest Vessels and *Fibres*; when the *Gouty* Person comes to his former Diet, and the other Circumstances of living; and the Fluids become thereby loaded with their Salts, they stick more obstinately to the Joints, than if the Parts had been subdu'd and broken by regular Fits of the *Gout*. So that a Salivation, tho' it banish the Fits
for

for some time, yet when the Blood is replenish'd again with *Gouty* Salts, the Habit is reduc'd to a worse Condition, in respect of the future Fits, than if they had never been interrupted: And, indeed, it is observable, that after a full, or repeated Salivations, the Man is seldom or ever the same, as to the Quickness of Sensation; or the Usage of the most beautiful animal Faculties. But there is an absolute Necessity of having recourse to *Mercurial* Vomits and Purges, when the *Gout* becomes fixt to, and permanent in a Place, as also when it is dispersed all over the Habit, like a Rheumatism. These active Medicines must first render the Humours fluid, which *Gum Guajac* with Diaphoretick *Antimony* persisted in will afterwards carry off. I come now to consider the *Gouty* Person under two different Circumstances. *First*, under a regular Fit. And, *Secondly*, in the Intervals.

XVIII. 1. On the *First* Attack of the Fit, especially while the Fever, that ushers it in, remains, Dilution is the only Remedy. Fine, clear, old small Beer, with a little old Mountain, or *Madera* Wine; Water boil'd with a few Spicy Seeds, mix'd with these Wines: Water Gruel with some Wine, or Hartshorn-Drink with Cinnamon; and little or no Flesh Meat, will succeed best during all the time of the Fever. After the Fit is distinctly form'd, the milder Cordial and Stomachick Medicines, which promote a gentle Breathing Sweat (I mean in the more compounded and tedious Fits of the *Gout*, chiefly in Persons advanc'd in Years) such as *Gascoin* Powder, *Goa* Stone, *Bezoar*; Sir *Walter Rawleigh's* Cordial, *Diascordium*, Confection of *Alkermes*, and the like, wash'd down with clear Blood-warm Sack-whey; in every Draught of which ten or fifteen Drops of Spirit of Hartshorn has been first pour'd; with Flannel

nel on the Parts, and much lying a Bed ;
 such a Method, and such Medicines, I
 say, will best forward the Fit. Towards
 the Decline, the stronger, warmer,
 spicy and Stomachick Medicines ; such
 as *Serpentary Root*, *Casamunair*, *Zedo-*
ary, old *Venice Treacle*, *Electuarium*
de Ovo, and such like ; with a few Grains
 of *Camphir*, and Salt of *Vipers* ; and a
 good Stomach Bitter on Wine to wash
 them down, will finish this Affair,
 strengthen the Bowels, and prevent the
 Recoil of the *Gouty* Humour on them.
 And here it may be taken Notice of,
 that as the Fever, that ushers in the
Gout, is, so will the Fit be : If the Fe-
 ver is short and sharp, the Fit will be
 so likewise, in regular *Gouts* : If it be
 feeble, long and lingering, the Fit will
 be such also. In the Management of
 the foregoing Method and Medicines,
 two Cautions are to be minded : *First*,
 That during the whole Fit, Liquors
 may be more freely and safely indulg'd,
 than solid Foods. For Repletion from
 solid

solid Foods, in a Fit of the *Gout*, might be of fatal Consequence, by rendering a regular Fit of the *Gout* irregular: Whereas Fluids will certainly pass, either by Perspiration, Sweating, or Urine. *Secondly*, The Cordial Medicines are always to be regulated, by their Lightness on, and Agreeableness to the Stomach of the Patient; (for whatever makes him sick, will more or less draw in the *Gouty* Humour on the Stomach) and by their not rendering him more hot and restless, than the *Gout* it self wou'd naturally make him: For if they produce an agreeable Sensation on the Stomach, and do not inflame, they will necessarily procure Coolness and Quiet.

XIX. Here it may be consider'd, whether *Opiats* may be safely given in a Fit of the *Gout*, to procure Rest, and alleviate Pain. In the general, it is the safest side, not to administer any kind of *Opiats* in the Fits; because they

E constantly

constantly pall the Appetite, and leave a Nauseating, and perhaps a Reaching on the Stomach, the readiest way to bring the *Gout* there. But in Extremities, when the Patient has been many Days without Rest, and the Pain becomes intolerable, all other Means failing, or equally dangerous, *Opiats* may be so qualify'd, and their mischievous Effects so bridl'd, by joining spicy, nervous and Stomach Medicines to them, that they may become an excellent Remedy. Thus liquid *Laudanum*, with Tincture of *Castor*, of *Snakeweed*, of *Diambra*, of *Saffron*, *Sal Volatile*, Compound Spirit of *Lavender*, *Hysterick Water*, and some agreeable Simple Water; some of these mix'd in a due Proportion, and proper Dose, will not only procure Rest, and ease Pain, but answer all the other Intentions in the Cure of a Fit of the *Gout*. Thus also, *London Laudanum*, with old *Venice Treacle*, or *Mythridate*, *Serpentary Root*, and unscented Species of *Diam-*
bra,

bra, made into a *Bolus*, with any agreeable Syrup, and caution'd, as before, will produce the same Effect.

XX. As soon as the Pain is almost gone, - and the Swelling and Weakness only remain, nothing will more quicken and finish the Cure, and strengthen the weaken'd Parts, than gentle, warm, stomachick and spicy Purgers, dos'd and repeated according to the Strength of the Patient; by carrying out of the Habit, the more gross and unperspirable Remains of the *Gouty* Humour. This premis'd, especially after long and severe Fits, which have impair'd the Strength, and wasted the Muscular Flesh; I should advise Ass's Milk with Pearl, half a Pint, or a Pint, in the Morning early, and five or six a Clock in the Afternoon; to lengthen out the Morning Sleep, to pulp up the exhausted Muscles, to cool and refresh the parch'd *Fibres*, and keep the Body soluble; which Ass's Milk commonly does. And to keep up the Appetite,

which the Milk commonly palls, and to prevent its too cooling Effects on the Stomach, a light bitter made of Gentian, Cinnamon, and Orange Peel only, the last double of the other two, infus'd on Sherry or White-Wine, and taken two Hours before Meals, may be us'd most conveniently. This Course might be continu'd for two or three Weeks: After which I shou'd order a Course of *Bath* or *German Spaw* Waters, with Steel, riding, a light White-food Diet, and generous Wines drunk temperately.

XXI. It is in the Intervals of the Fits that any thing great or probable is to be undertaken for the Relief or Cure of the *Gouty*. The Methods, both general and particular, I have touch'd upon. I come now to recommend some special Medicines, which have been found useful in this Case. It is certain that great Abstinence from Flesh, Fish, and Wines, would prevent the Fluids from being overloaded with *Gouty* Salts. It is

is also certain, that if the Food be carry'd out before it is digested, it will be pretty near the same thing, as if the Quantity carry'd out, had not been taken down. Now if a Medicine can be found, that without weakening the Stomach and Bowels, shall carry off the greater part of the Food, before it is quite rob'd of its Salts, it can't fail to be of great Use in the Intervals of the *Gout*. For this purpose, I wou'd recommend fine Rhubarb, taken regularly once, twice, or oftner a Week, in such a Dose, as to procure two or three Motions: For these Reasons, *First*, Because it is an excellent Stomach Bitter, as is evident from its Taste, and from the sharp Appetite it gives those that take it frequently. *Secondly*, Because it is one of the noblest Astringents hitherto known, as is evident from its Cure of Fluxes, and intestine *Hæmorrhages*; and from the Tightness it leaves on the Bowels. *Thirdly*, Because it requires neither Diet, nor keeping warm, nor any other particular Management; and

and yet taken frequently and regularly, it will carry off any Proportion of the Food one pleases; and so reduce the Diet, as near as needs be, to *Cornaro's*, which, in Article XIII, has been shewn to be of so excellent Use in the *Gout*. I knew a Noble Lord, of great Worth, and much *Gout*, who, by taking from the Hands of a Quack, a Dram of Rhubarb, ting'd with *Cockineal* to disguise it, every Morning for the Space of six Weeks, liv'd in Health for four Years after, without any Symptom of it.

XXII. It is worth here taking Notice, that all the Preparations of this Medicine serve only to spoil it: And that it is best taken in a spoonful of Soup, or any other agreeable Liquor, immediately before Dinner, or chew'd in a Morning fasting. But to those to whom its Mawkishness is nauseous, I wou'd recommend this Form. *Take Gentian and Zedoary of each a Dram, Serpentry Root, and unscented Species of Diambra, of each half a Dram; Co-*
chineal

chineal and Saffron of each a Scruple; Orange Peel an Ounce; infuse in a Quart of Mountain, in a warm place twenty four Hours, strain, and to the Liquor add three Ounces of the best Rhubarb; Salt of Wormwood a Dram and an half; set in a warm Sand heat twelve Hours; and then strain a second time. Of this four Spoonfuls every Night, or every other Night, as occasion requir'd, I have found an excellent Remedy in this and other Chronical Cases. Where no Preparations of Rhubarb will agree with the Constitution, as there are many such, then *Elixir Salutis*, Tincture of *Hiera Picra*; a Solution of Gum Guajac, or the *Scotch Pills*, might take place; but that all the Preparations of *Aloes* are apt to throw out both *Gout* and *Piles*. However in this matter there is great Variety; out of which every one may fit themselves with what is most agreeable to their own Constitution; which if they use regularly and frequently, they cannot fail to prevent violent Fits of the *Gout*, and perhaps most other,

other, both Acute and Chronical Distempers.

XXIII. Next to Rhubarb, and all Circumstances consider'd, even far before it, I would recommend *Sulphur*, as one of the best Remedies in the Intervals of the *Gout*. It is but in little Use at present in Physick, except in the *Itch*, and the *Piles*; and yet in the whole Extent of the *Materia Medica*, I know not a more safe and more active Medicine. Its wonderful Efficacy, and particular manner of Operating in these common Cases, might, I think, have encourag'd its Trial in other Chronical Cases, especially considering the Facility of its Working, and the little Trouble it gives in taking it. Its principal Qualities are these. 1. The Parts of *Sulphur*, and those of Light and Fire, act mutually upon one another, more powerfully than those of other Bodies. It is to their *Sulphur* that Bodies owe reflecting and refracting Virtues; from whence its Inflammability proceeds.

* The

* The Particles of *Sulphurous* Bodies receive and retain those of Light and Fire, more strongly than any other Bodies: And the Rays of Light and Particles of Fire, separate, move and turn the Parts of *Sulphurous* Bodies into Fire and Flame.

2. The Parts of *Sulphurous* Bodies are very small, even smaller than those of Water it self, whereby it comes to pass that they will enter those small Vessels, where Water it self (our best and most universal Diluent) can't come; this is evident from hence, that Water will not dissolve *Sulphur*, and that no Moisture will stick to fat Substances, or the Feathers of Water Fowl: As also from its Cure of all cutaneous Foulness; which it cou'd never effectuate but by entering all those smallest Vessels. which scarce any other Medicine can enter. And *lastly*, by its dissolving the sily Juices of the smallest internal *Glands*, when obstructed; particularly those of the

* Vide Sir Isaac Newton's *Treatise of Light and Colours*, 1 Edit. in English towards the end.

F

Lungs,

Lungs; *Mesentery* and *Rectum*; as in the humorous *Asthma*, *Scrophula* and *Piles*. 3. *Sulphurous* Bodies will readily unite with, and destroy the Effects of all *Saline* Particles, but especially those of the acid kind. And in this their great Energy seems to consist. *Sulphur* yields the most piercing, active, and agreeable *Acid* in the World; such as Spirit of *Sulphur*, Gas of *Sulphur*, and the like. 4. The fat and oily Parts of *Sulphur*, like other fat and unctuous Bodies, are the lightest, the most coherent, and the most springy of all Bodies. These two last Qualities are most manifest from the artificial *Sulphur* made of Oyl of Turpentine and Spirit of *Vitriol* (the strongest Glew, and the most penetrating Acid) duly digested and carefully manag'd, which in all respects is the same with natural *Sulphur*. “ No “ Body denies (says *Tournfort* in his Voyage to the *Levant*, Pag. 122. Part I. *English* Edit.) “ that *Sulphur* is only a “ fat Substance, fix'd by an acid Spirit: “ The

“ The *Sulphur* which is artificially
 “ made, and the *Analysis* of common
 “ *Sulphur*, put this Truth out of all
 “ Dispute. For the Sea Water being
 “ fat by the Oil of the Sea Fish conti-
 “ nually corrupting there, and bitter
 “ and saltish from its saline Rocks,
 “ produces in proper Nests natural *Sul-*
 “ *phur*.” And Sir *Isaac Newton* says, in
 his last Edition of his *Opticks*, pag. 359.
 “ By dissolving Flower of Brimstone
 “ in Oil of Turpentine, and distilling
 “ the Solution, it is found, that *Sul-*
 “ *phur* is compos’d of an inflammable
 “ thick Oil, or fat *Bitumen*, an acid
 “ Salt, a very thick Earth, and a little
 “ Metal: The three first were found
 “ not much unequal to one another;
 “ the fourth in so small a Quantity, as
 “ scarce to be worth the considering.”
 Join all these Qualities together, and
 you have one of the most admirable Re-
 medies in the World, for all Intentions
 in the Cure of the *Gout*: By its agree-
 able Taste and Lightness on the Sto-
 mach,

mach, (especially when wash'd down with any milky Vehicle) its Tenacity, Ropiness and Elasticity; the Smallness of its Parts; their Efficacy in destroying the Mischief of all saline Particles, with their natural Warmth, join'd to the Activity of its acid Salt, (making it a kind of natural Soap) it enters the small Vessels, where no other Diluent, hitherto known, can come; cleanses their insides from the Foulness that sticks to them; imbibes and retains all the *Gouty* Salts, and carries them out of the Body by Perspiration; softens, smooths and relaxes the parch'd and stiffen'd *Fibres*; and by leaving some of its oily Parts on their Surfaces, sheaths and defends them from the Points of the Salts afterwards introduc'd. And the Fact is, from repeated Trials I can recommend *Sulphur*, as a most powerful Remedy in the Intervals of the *Gout*. For I have known half a Dram of powder'd *Sulphur*, or Flowers of Brimstone, taken regularly twice a Day in a Spoon-
ful

ful of Milk, prevent the Fit for many Years; and lessen both its Pain and Duration when it happen'd: For it mov'd the Body gently once or twice a Day. I have in my Possession Testimonies under the Hands of some treated and tended by my self; and of others of undoubted Credit, witnessing to the great Success of this Medicine in the Intervals of the *Gout*. Nothing hitherto discover'd, I believe, equals it obstinately persisted in.

XXIV. Especially if to these be added plentiful Dilution by some Blood warm Infusion of a spicy and diuretick Plant in Water, so as to provoke a gentle Breathing Sweat, and pass freely by Urine. Thus large Draughts of Sage, Dwarf-Elder, Buckbean, or Green Tea; but especially of weak Whey made on old Mountain, drunk Blood warm, and on an empty Stomach, and join'd to any of the now mention'd Medicines, will be of great Advantage in the Intervals

tervals of the *Gout* ; by diluting and breaking its Salts, and carrying them off by Perspiration and Urine. And certainly *Roselli's Drops*, (perhaps the *Tinctura Metallorum* somehow alter'd) which were said to work gently by Stool and Sweat, in the Hands of a prudent and knowing Physician, had been an admirable Remedy, as answering both the Intentions mention'd, in the Intervals of the Fits ; and even in the Fits themselves, it had not been without its Use (always excepting the *Vernal* and *Autumnal* regular Fits) had he dealt with recent *Gouts*, and firm Constitutions only. That which I wou'd particularly recommend here, is, a weak Decoction of the *BARK* of *Sarsa* Root (in the *BARK* the Virtues of the Plants chiefly consist : For being replenish'd with most part of, if not all the Juice-circulating Vessels, it contains all its Salts and most active Parts ; and being Spungy and Tender, it is thereby more easily digested : And where Roots are most
in

in Use, the *Bark* of the Root is more eminently useful, for the Reasons assign'd: As also because, towards the End of the *Autumn*, when Roots are gather'd, the Cold has already driven the Juices into their *Bark*. And this may be one Reason why the famous Pox-Doctor succeeds in some Cases, when mismanag'd *Mercurial* Treatments have fail'd: His Diet-Drink chiefly consists of a Decoction of the Bark of this Root: His Pill is *Mercurial*, perhaps the *Arcanum Corallinum*, or *Panacea*, and these two persisted in for so long a time, must necessarily sweeten the tainted Juices, and expel the entangl'd and grosser *Mercurial* Parts, which clustering together, cou'd not perform the Circulation, but were retain'd within the Habit, by former mismanag'd Salivations, and thereby render'd ineffectual to the Cure; especially, if to these be added, the low and starving Diet he prescribes. For I have heard of a famous Sea-Commander,

mander, who effectually cur'd the first Stages of *Venereal* Distempers by living twenty Days on *Water Gruel* only, in which a little *Cream of Tartar* had been first dissolv'd; and higher Degrees of the same by the like Diet continu'd twice the Time;) with a little Milk, drunk freely Blood warm every Morning, which I have known wonderfully relieve *Gouty* Persons, when drunk all the Winter between the *Cardinal* Fits. And even Cow's Milk warm, taken for Breakfast and Supper, has been of great Service to those *Gouty* Persons who drink not much Wine; for those who drink Wine freely, have too hot and sour Stomachs to deal in Milk.

XXV. Even drinking freely of light, clear Spring Water after full Meals, and indulging in strong Liquors, will be found of great Use in the Intervals of the *Gout*. It is well known that warm Water alone, drunk in a Morning fasting freely, and at Meals, from its Heat,
its

Drink

Drink will be much diluted; and the Labour and Expence of Spirits in Digestion much sav'd. And *Thirdly*, the *Gouty* Salts will thereby be dissolv'd and distanc'd from one another; and so be more readily carry'd off by the free Perspiration, Sweating and Urine which ensue.

XXVI. But beyond all other things, a well order'd Course of *Bath* Waters, with *Chalybeats* and warm Bitters, and a frequent and regular Use of Stomach Purgers will be found to succeed best in *Gouty*, as well as other Chronical Cases. The Learn'd have been divided, and much perplex'd about the Heat of *Bath* Waters. I have always endeavour'd to account to myself for it, from the common Experiment of mixing filings of *Steel*, and Powder of *Sulphur*, working them into a Paste with Water, and putting them into a Cellar, under a Cock, dropping Water slowly and regularly; the Paste will

will ferment to such a degree, that the Water running from it shall be of the same Heat and Virtue with the *Bath Waters*; tho' not so pleasant, nor so well fitted to human Bodies. This is a common Experiment, and these are the only natural Bodies known, which meeting together will produce Heat in Water, without artificial Fires. *Tournfort*, in the Place before mention'd, says, "It's certain that filings of Iron steep'd in common Water will grow considerably warm, and much more so in Sea Water: And if you mingle there with some *Sulphur* powder'd, you'll see this Mixture really burn." Sir *Isaac Newton*, in his last Edition of his *Opticks*, page 354, says, "That even the gross Body of *Sulphur* powder'd, and with an equal Weight of Iron filings, and a little Water made into a Paste, acts upon the Iron; and in five or six Hours grows too hot to be touch'd, and emits a Flame." That the Heat

of the *Bath* Waters is owing to a Principle within themselves, is evident, from their retaining it longer than any other Water, heated to the same Degree, will. Wherefore there can be no Necessity of having recourse to *Vulcano's* or subterraneous Fires, to account for this Appearance. There are no burning Mountains known in this our *Northern* Climate; and 'tis pretty hard to conceive, how Fires shou'd have burn'd so long under Ground without a Vent, or any other remarkable Sign. The *Sulphur* in the *Bath* Waters is evident to the Senses, swimming in large Clusters on the Tops of the *Baths* mix'd with Earth, and some vegetable Substances, wherewith the Guides commonly gild Silver: and is found an excellent Remedy in *Scurvies*, *Leprosies*, *Ringworms*, and other *Foulnesses* of the Skin. The Steel is manifested by the blewish Tincture given to the Water from the Pump, by an Infusion of Nut-gall. It is true, this Tincture is neither so deep, nor is it to be had from the Water, in any short time

time after it comes hot from the Pump, thereby to manifest any great Quantity of Steel in the Composition, such as can have the full Proportion to the Experiment now mention'd. But, to set this in a clearer Light, let us put together these Considerations. *First*, That upon Distillation of *Bath Water*, there remains little in the Bottom of the Glass but the common *Calx* or Sea Salt, that is found in the Distillation of Spring Water, if we except some Sand or Earth, that is forc'd up by the Violence of the Pump; wherefore the *Bath Waters* not being impregnated with any Quantity of a saline Mixture, can retain nothing in their own proper Substance but the lightest Parts of the Steel and *Sulphur*. *Secondly*, That this Water is as fully impregnated with *Sulphur*, as it can bear, has been already shewn: And that there must be a greater Proportion of Steel in *Bath Water* than is manifested to the Senses, or discover'd by any Experiment hitherto made, is evident from its healing Effects, which no known
Medicine

Medicine but Steel can bring about, or account for: None but those who have seen it, can believe the wonderful Efficacy it has, in most Chronical Cases. What, but Steel, in a few Weeks, can make the Blood, from a white blewish or tallow Hue, resisting the Knife, like Glew, swimming in its *Serum*, like an Island amidst the Ocean, look all of a Piece, of a Scarlet Colour, and a due Proportion between its nourishing and its watery Parts. Nothing but Steel can make a pale ash-colour'd Countenance, hollow and deep Eyes, no Appetite, little Strength, and less Sleep; eat, and drink, and sleep, look gay and sleek, like the best Health. Thousands of such Instances may be seen every Season at these healthful Springs. *Thirdly*, The Effects of *Sulphur* in bridling the sensible Appearances and Operations of most active Medicines, is very well known. Instances of which, in natural Bodies, are, *Antimony* and native *Cinnabar*; in artificial ones, *Æthiops Mineral*, and *Cinnabar of Antimony*: In all

all which the *Mercury* is so bridl'd up by the *Sulphur*, that none of their sensible Operations and Appearances are felt, while they produce the most wonderful Changes on animal Bodies. I cannot pass over *Æthiops Mineral* without pressing its more universal Use than, for ought I know, it has yet had in common Practice. It is one of the most certain and universal Alteratives, if dos'd sufficiently and long enough persisted in, of all the *Dispensatory*. It radically extirpates the Itch, the Piles, scorbutick and scrophulous Ulcers; all cutaneous Foulnesses; all Inflammations and Fluxions of the Eyes; all internal Ulcers, Rheumatisms, white Swellings; sharp Humours in the Stomach and Guts, and almost all Distempers arising from fizy Juices. I say, it cures these, if Art can do it; for some of these (like hereditary *Gouts*) are so transubstantiated into the Solids, that nothing but a new Conformation of Parts can cure them. It may be given almost to half an Ounce a Day, especially with interspers'd *Mercurial*.

curial Purges, without Trouble, or any sensible Operation, and continu'd for a Twelve-month, if one pleases. The finest *Sulphur*, and fittest to make *Æthiops* of, is common *Sulphur* powder'd, and boiled seven or eight times in Spring Water, whereby it becomes as light on the Stomach as prepared Peach, and as effectual in the Cases mentioned, as the celebrated *Sulphur* of *Aix la Chapelle* Waters. But to return to the Business.

XXVII. The sum of all then is, since the *Bath* Waters derive their Heat from a Principle within themselves; since no natural Body, but *Sulphur* and Iron can produce such a Degree of Heat, as is in them; since nothing but Steel can produce those wonderful Cures on human Bodies, which *Bath* Waters do; since *Sulphur* will lock up and bridle the sensible Appearances and Effects of the most active Bodies, and yet not destroy their healthful and medical Virtues; it is plain, that *Bath* Waters must owe their
Heat

Heat to a Mixture of steely and sulphurous Particles; and their healthful Effects, to a greater Proportion of Steel, than is sensible, or easily discoverable by any Experiment hitherto made, join'd to a light *Sulphur*, whose Virtues and Efficacy in all Chronical Cases, we have already shewn. The Mountains which surround the Place, which every Body now knows, to be but the Nests of Minerals, and the Receptacles of the Waters, which feed the Springs, (which Mountains are continu'd even to the Sea) confirm this Opinion. The manner I conceive thus: The Dews drilling and droping through the Cranies of the Mountains, fall upon a Bed of Iron Oar, and are there as fully impregnated with *Chalybeat* Particles as such Water can bear; and gently owzing down upon a Nest of *Sulphur*, and there fermenting to such a Degree, that requiring more room, they bubble up at the Foot of the Mountains, with their sulphurous Spoils, and furnish out this healing and balsamick Fluid. All hot Waters seem chief-

H

ly

ly to consist of these two Principles; and to differ only as the *Sulphur* or *Steel* predominates in them. Where the *Sulphur* predominates, they are hotter, more nauseous, and more purgative. Of the three hot *European* Waters of Note, the *Aix la Chapelle*, *Bourbon*, and *Bath*; the first abounds more eminently in *Sulphur*, which makes its Heat, Nauseousness and Purgative Faculty so great, that few weak Stomachs can bear its Heat and Nauseousness; and fewer weak Constitutions, the Violence of its Purg-
 ing. The *Bourbon* are of a middle Nature, between the *Aix la Chapelle* and the *Bath* Waters, and are less hot, nauseous and purgative than the *Aix la Chapelle*, but more than the *Bath* Waters. The *Bath* partake less of the *Sulphur* and more of the *Steel* than either of these two; and are by far the most pleasant; of a milky Taste, never purge, except they be drunk either too fast, or in too great Quantities, and always mend the Appetite, and raise the Spirits. The weakest hot Waters are but of little Use, ex-
 cep

cept in the lowest Cases, and heetick or consumptive Constitutions; but for Medical Uses, the weaker hot Waters may be made pretty near equal to the stronger by Evaporation, as to the sulphurous Principle; as the stronger may be brought down to the weaker by Dilution, as I have experienc'd; tho' Nature be always the wisest and most perfect Operator. But neither the same Proportion of *Steel*, nor *Sulphur*, nor Heat, indifferently fit all Constitutions. Generally the Strength (*i. e.* the Quantity of *Steel* and *Sulphur*) of the same hot Waters is in proportion to their Heat; and therefore to fit the same Waters to weaker Constitutions, they need only be drunk proportionably cooler.

XXVIII. The *Bath* Waters having such an Origin, and such Qualities, must needs be an excellent Remedy in the *Gout*, and other Chronical Cases, for these Reasons; 1. Because of their Warmth, just suited to the Wants of Nature, and a little above the Heat of

human Bodies, sufficient to introduce a foreign Warmth and Motion to cold and decay'd Bowels and Fluids; whereby the natural Warmth and slow Circulation is increas'd and enliven'd. 2. This, with its agreeable Taste and milky Softness, makes it sit so easily on the Stomach, and become so excellent a Vehicle, to wash into the Blood other proper and specifick Medicines, without that Nauseousness and Fret on the Spirits, which all other hot Waters, hitherto known; or that Chillyness and Damp, which all cold Mineral Waters, give: whereby they are render'd useless or hurtful in some low and nervous Cases. To these add, 3. Their *Chalybeat* Principle, so peculiarly lock'd up in *Sulphur*, that the Patient reaps all the Benefit and healthful Effects of the best Preparations of this Medicine (and what are not two such powerful Medicines combin'd able to effect?) without the nauseous Taste, and frequent Disorders upon the Stomach, that every other way of giving *Steel* produces. 4. The
Sulphur

Sulphur united with the *Steel*, makes it a natural kind of Soap, for cleansing the insides of the Vessels from the Foulness that cleaves to them; and for opening the Obstructions of the small Vessels. But 5. That which, together with the others, makes it specifick in the *Gout*, is, its relaxing Quality, whereby it softens and supples the rigid and stiff *Fibres*, so as the *Gouty* Humours may pass freely by Perspiration. Much more might be said of this wonderful Remedy provided by the Hand of Nature, to relieve the Miseries of human Life; but this the innumerable Crowds of Cripples of all sorts, and those other Persons made miserable by Chronical Distempers, sent thence, every Year, cur'd, or reliev'd, do witness, more convincingly than either Philosophy or Rhetorick can.

XXIX. I will here remove two Difficulties: The *First* is, concerning Bathing in the Intervals of the *Gout*. The only Reason given for this Difficulty is,
left

lest the *Gouty* Humour shou'd be driven inwards upon the Bowels. But this seems to me a mere groundless Jealousy: For in regular *Gouts*, when the Fit is over, it is to be suppos'd, that the *Gouty* Fluid or Matter is mostly or altogether spent, and the Fluids in a healthy sound Condition. And therefore it might be as reasonably doubted, if in the Intervals of two putrid Fevers (of which many have had more than two in their Life-time) a Person might safely bath. There is no Question, but that a *Gouty* Person may both as safely bath, and take any Medicine, for any incident Disease, as any other Person; regard being had to his particular Constitution. And 'tis Matter of Fact, that those who have been cripp'd by the fixing of the *Gouty* Salts upon the Joints, or disabl'd by the Tendernefs of the Parts, have been extremely reliev'd by a long Course of Drinking and Bathing in these hot Waters, which by relaxing the *Fibres*, dissolving the fizy Humours, diluting the *Gouty* Salts, and making them
pass

pass by Perspiration, have restor'd them to the Use of their Limbs.

XXX. The other Difficulty is, how the same hot Water shou'd relax contracted *Fibres*, as in the *Gout* and *Rheumatism*; and yet contract and brace relax'd *Fibres*, as in the Palsy and wasted Limbs. That the Matter of Fact is so, is past all Doubt in these and many other Cases of Contraction and Relaxation. But to clear up this, we need only to consider what Contraction and Relaxation are. Since all the Fluids of the Body are contain'd in Vessels, Contraction can arise from nothing but from the Blood and other Fluids (or whatever is the Cause of Muscular Motion) Their being retain'd and obstructed by their Siziness; or from some external Injury: in the Substance of the Muscle it self; whereby it becomes fuller and firmer, and so acts as upon its Office of Contraction. Relaxation, upon the other hand, is an Obstruction of the Nerves or Vessels of the Fluids, before they

they arrive at the Muscles; as is seen in Palsies and the Nervous *Atrophy* of the Limbs; so that in both Cases, Obstructions are the Cause both of Contraction and Relaxation. Wherefore, whatever Medicine can dissolve the Sickness of the Fluids; open the Obstructions of the small Vessels; make the Perspiration full and free, and brace the *Fibres*; will both contract Relaxations, and relax Contractions: And that these are some of the Effects of *Bath Waters*, has, I think, been made sufficiently appear.

XXXI. If it be enquir'd into, what other Cases, besides the *Gout*, *Bath Waters* may be useful in; the Answer will be obvious from the Account now laid down; to wit, That they must be beneficial in all Cases, where *Steel* or *Sulphur* is; that is, in almost all Chronical Cases whatsoever. In Acute and Inflammatory Cases, in all Cases attended with a strong, quick Pulse, no *Mineral Water*, nor *Chalybeat* Medicine can

can be proper. But in all other Cases (excepting those only attended with a Bleeding or *Hæmorrhage*) they are not only safe, but exceedingly beneficial. More particularly, their wonderful Efficacy has been often experienc'd in *Cachexies*, *Scurvies*; in the *Stone*, *Rheumatism* and *Jaundice*; in *Hypocondriacal* and *Hysterical* Affections; in *Vapours* and *Melancholy*; in *Palsies*, *Epilepsies*, and other *Cephalick* and *Nervous* Distempers; in Disorders of the *Stomach* and *Bowels*; Obstructions of the *Liver* and *Gall-bladder*; in *green* and *breeding* Sicknesses; in *Barrenness* and *Weakness* after Childbirth; in Obstructions of the *Monthly* Purgations; and all other peculiar Diseases of the *Sex*. And truly, if a Person afflicted with a low, broken or tender Constitution, suffering under the tedious Pains and Inquietudes of any of the lingering Distempers now mention'd, where the *Viscera* or *Bowels* are yet sound, wou'd know the fittest Place

I in

in *Britain* to spend their Life-time with the greatest Ease and Pleasure; take all the Advantages of the Place together, the Agreeableness of the Waters to the Stomach; the Certainty of their procuring a good Appetite, when it fails; and the no less certain Consequence thereupon, Freedom and Chearfulness of Spirits; the regular way of living; the Excellency of the Provisions; the Warmness, Cleanness and Neatness of the Housing; the Conveniency of the free, fresh and open Air of the neighbouring Downs for Exercise; the easiness of the Amusements; and the Advantage of what Conversation one desires; I say, taking all these Advantages together, I can affirm, from near twenty Years Experience, without Suspicion of Flattery, or Fear of Contradiction, that *Bath* is the Place.

XXXII. Some wise and frugal People think the mere drinking of these Waters, for some time, without taking
any

any Medicine, either before or with them, may be sufficient to remove any of the Chronical Ails they are good for; but those, if they are really ill, in any other manner, except mere Loss of Appetite, are generally convinc'd, upon Trial, at their own Expence, that they neither ought to begin a Course of the *Bath Waters*, without a previous cleansing of the Stomach and Bowels, lest they wash into the Blood through the *Lacteals*, by the perpetual Dilution of the *Bath Waters*, those Impurities, which constantly cleave to them; nor that they ought to expect a perfect Cure of a long-breeding and lingering Distemper, without the Assistance of those other Medicines which are reckon'd Specifick in the Case; and to which the *Bath Waters* are so pleasant and so assistent a Vehicle. For it is but Prudence to bring all the Forces one can raise, against so potent and so formidable an Enemy as a Chronical Distemper.

XXXIII. It is not possible to lay down a general Rule, about the Quantity of *Bath Waters*, which it is convenient to drink daily; that being to be varied according to some Circumstances of the Patient, and the Nature of the Distemper: Strong, full and large Bodies bear more Waters than tender, thin and lesser ones; the younger more than the elder; those of strong and firm, than those of weak and relax'd *Nerves*; those who labour under the *Gravel* and *Rheumatism*, than those who are disorder'd in the *Alimentary* Passages, or are subject to *Scorbutick* or *Nervous* Weaknesses, and the like. But in general, it were to be wish'd, that *People* who come to *Bath* for their Healths, drunk less daily than they commonly do; and allow'd more Time for a Chronical Distemper. I think it may be safely advanc'd, That any Quantity greater than an *English Quart*, in a Morning, drunk in two Hours Time, half a Pint every half Hour, is more than what is reasonable.

For,

For, drinking in this Proportion, all the rest of the Day; at Meals, *to wit*, in the Afternoon, and going to Bed, they must take down no less than five Pounds in about sixteen Hours; *viz.* two Pounds in the Morning, a Pint and an half with Wine at Dinner, half a Pound in the Afternoon, and as much at Supper and at going to Bed. This every Body must see is fully sufficient to answer all the Intentions of drinking *Mineral Waters*. A greater Quantity than this will serve only to distend and *relax* the Alimentary Passages; to force its way through the largest, and most patent *Tubes*; and to propagate the Circulation through the Branches and *Inosculation*s of the larger Arteries and Veins, where the least Foulness and fewest Obstructions can happen: So that it will scarce ever reach the finest Capillary Vessels, in which alone the Danger lies. And the late *Ingenious* and *Learned Doctor James Keill* * has

* Pag. 49. *Tentam. Medico-Physic. Jac. Keill.*

made it evident, that the most expeditious way of altering the whole Mass of the Blood, by *Mineral Waters*, is, by small and frequent Draughts. In most Cases a *Pint* in a Morning is sufficient, and in low Constitutions and Disorders in the Alimentary Passages, tending to Vomiting and Purging, *half a Pint* is enough; and whatever Quantity is to be drunk, 'tis always best to take it in small Quantities, and at good Distances, provided it come within the Compass of the Morning. What is drunk at Meals, tho' cold, yet being fresh, and not altogether drain'd of its Principles and Virtues, contributes near as much to the Cure, as that which is taken in the Morning. The Afternoon and Evening's Draughts are more *arbitrary*, and must depend upon the Observation of the Patient, as he finds them agreeable to his Stomach, and sit easily or not: Where too great Quantities have not been swallow'd down in a Morning, they are very proper, provided they be in Proportion to the Morning's

Morning's Quantity, and never taken under four or five Hours after Dinner; and that at Night, not under two or three Hours after Supper; these times being the most proper to assist the Digestion, and carry off the Remains of the Food. But the Truth is, as nothing is more necessary, in a Course of these Waters, than setting out right at first; so nothing requires more the Experience and Judgment of a Physician, than the accommodating the previous Preparations, the Quantities to be drunk, and the Medicines to be taken with them, to the Distemper and the Constitution of the Patient. For these once settl'd, the rest generally goes on successfully.

XXXIV. I come now, in the last place, to make a few Observations upon irregular *Gouts*. When the original Constitution is broken and impair'd; the Parts subdu'd and full of *Gouty* Salts; the Force of the Circulation, by Age and frequent Fits, weaken'd, and continu'd only through the Inosculation
of

of the great Vessels; the Humour recoils inwardly upon the Bowels. And this is call'd an irregular *Gout*. While it is in any Joynt, or any *Muscular* Part, it is still esteem'd regular, tho' the nearer it comes to those outward Parts, the least remote from the Heart and Bowels, the nearer it comes to an irregular one, and so consequently to its last and fatal Stages. To which it seldom comes unattended; for it generally brings the *Stone* along with it: Of which it mayn't be amiss to make this one Observation, to wit,

XXXIV. That the Chalk-Stones voided from the Joynts of *Gouty* Persons, and the Gravel Stones found in the Bladders of such as were afflicted with this Distemper (perhaps the Stones found sometimes in the Gall-Bladder, but of this I can affirm nothing) are, to all their essential Qualities, the same. They have both the same Colour, Taste and Smell; they yield both the same Principles, and produce the same Appearances,

pearances, when treated chymically. They have both the same internal Texture of Parts, as far as can be known, and even the same outward Shape, when unbroken and unconfin'd by hard Substances; and they generally happen to one and the same Person: At least it seldom comes to pass, that any one is much troubl'd with the *Gout*, but he has the *Stone* at last. And this shews that they are both owing to the same Conformation of Parts, and other general Causes. It is true, some have suffer'd violently by the *Stone*, who never had the *Gout*; but this may be owing to a special, hereditary Narrowness and Stiffness of the Urinary Passages, in respect of the other Vessels; and a particular unhappy Texture of Parts, as it happens to some other Organs in other Persons: For fat People have smaller Vessels in proportion to their Stature than lean. But in the general, it is pretty constant, that those who suffer long under severe Fits of the *Gout*, seldom escape the *Stone*. Dr. Cyprianus, the

late ingenious Cutter for the *Stone*, had observ'd, that those who only drunk Malt Liquor were seldom ever violently afflicted with that Distemper: And among many hundred he had cut, he had never found one, who had only drunk Ale or Beer. Whether this was owing to the lesser Quantity of Salts in those Liquors than in Wine, or to the Slipperiness they induce upon the Bowels and other Vessels, or to both, I will not here take upon me to determine. But I believe the Fact is, both in the *Stone* and acquir'd *Gouts*, that those who only drink Malt Liquors, without Wine or Spirits, are seldom violently afflicted with either. And for the same Reasons it comes to pass, that the *Gouts* and *Gravel* of the Sex, are seldom so severe as in Men; they generally drinking less Wine, and feeding less of Fish and Flesh Meats. And that in the *Gouts*, both of Men and Women, who drink no Wine nor Spirits, any little proper Medicine has entirely kept off the Pain, and prevented the Fits. I know an
antient

anient Gentleman, formerly treated pretty roughly by the *Gout*, who drinking only Malt Liquors, has, for several Years, with certain Success, entirely kept off the Pains and Fits of the *Gout*, by taking only every Morning, regularly, a Pint of warm White Wine Whey, to encourage Perspiration : Which when he neglects to do, they as certainly return. We may therefore conclude, 1. That since the *Gout* and *Gravel* Stones are, as to their essential Qualities, much the same; and since 'tis hardly possible to account for the breeding of the *Stone*, but from a particular Narrowness and Stiffness of the Urinary Vessels, and an abundance of such Salts in the Fluids ; it is highly probable, that the *Gout* must proceed from the same general Causes : And this is some kind of Confirmation of the two first Propositions laid down in the beginning of this Discourse. 2. The same Method and Medicines that have been deduc'd from the first two Propositions, for relieving *Gouty* Persons, in

the Intervals of the Fits, will likewise serve for preventing the Encrease of the *Stone* and *Gravel*; as we are certain they do from the best Experience and Practice in this Case. I will now go on with my purpose, and consider an irregular *Gout*, fix'd on these three great Instruments of Human Life, the *Head*, the *Stomach*, and *Guts*.

XXXV. When the *Gout* has seiz'd on the Head, it is to be treated as any other violent Head-ach, or as an Inflammation on the Brain, or its Membranes; by Bleeding at the Arm or *Jugular*; Cupping on the Back; Blistering between the Shoulders, but especially on the Ancles, to give the *Gouty* Humour a Vent downwards. In young and strong Constitutions, *Mercurial* and *Antimonial* Vomits will do Wonders, tho' they are seldom to be ventur'd upon in any Constitution above Forty. The Intention here to be had in View (as in all other irregular *Gouts*) is to expel the *Gouty* Humour outwardly upon
the

the Muscles or Joynts, and to fix it there. Wherefore in order to carry it to as great a Distance from the noble Organs as may be, a free Passage is to be open'd to it on the Limbs, by blistering the Ancles and Wrists; and to promote its Conveyance thither, gentle Stomach Purgers are to be pour'd down continually, two or three Spoonfuls every third Hour, till the Effect is obtain'd. And for this end, I recommend principally Tincture of *Hiera Picra* with compound Spirit of *Lavender*, and a few Drops of Tincture of *Snake-weed*, and Tincture of *Diambra*, as being one of the most powerful Expellents, and an excellent Strengthenner of the Stomach and Bowels. Its common Mischief is little to be minded here, for the forcing Blood or the Piles will carry the *Gouty* Humour along with it; and these Disorders are but Trifles in respect of an irregular *Gout*. This Method will either spend the *Gouty* Humour, or turn it to a regular Fit. But here Care is to be taken that the Medicines

dicines be not too hot, especially in young sanguine Complexions, lest an Inflammation on the Brain, or its Membranes shou'd turn to a Phrenzy or Fever: But there is less Danger of this, because the *Gout* in the Head seldom happens to the younger, except through much and long Intemperance.

XXXVI. The *Gout* in the Stomach is a common and less dangerous Case; for the *Gout* seldom comes on and goes off without touching there by the way. In the slight Touches of it, any little Stomach Purge will set it a packing. But it is more obstinate towards the Decline of Life; when it settles in a constant Pain, nauseating and kecking in the Stomach. Vomits are reckon'd dangerous in the *Gout*, lest they shou'd derive the Humour on the Stomach: But there can be room for no such a Suspicion here. Wherefore upon the first Seizure of the Stomach, a Vomit is instantly to be administred, and repeated according to the occasion of the Case:

Case: After that *Hiera Picra* as is before caution'd and qualify'd, with a hot *Sinapism*, or Blister on the Ancles: And last of all, the highest Cordials, and most generous Wines, may be freely indulg'd, without fear of Inflammation. Among the Cordials, I wou'd recommend the *Electuarium de Ovo*, as containing *Camphir* (the most constant and active *Diaphoretic*, and the most useful one for that purpose) and some other of the richest Cordials. After all this Management, shou'd the *Gout* still continue in the Stomach, and become habitual (which it seldom does after such a Method taken in time) nothing but a long Course of the *Bath Waters* with *Steel*, Bitters, and gentle Stomach Purgers, a regular Diet, and proper Exercise, can effectually cure it.

XXXVII. The *Gout* in the Guts, on its first Seizure, may be easily treated, as a bilious *Cholic*; only the *Opiats*, commonly and justly given in the *Cholic*, are not here to be us'd, but in the
last

last Extremity. But this Distemper ought to be treated altogether in the manner prescrib'd in the former Section, about the *Gout* in the Stomach.

XXXVIII. There remains but one Distinction more of the *Gout*, and one which has not hitherto been much consider'd: For as the *Cholic* or *Asthma* is, so the *Gout* may be, divided into the Humorous and *Nervous*; tho' this Distinction depends more upon the Complexion of the Patient, than the abstracted Nature of the Distemper. The Humorous *Gout* happens only to People of grosser Habits, more robust Constitutions, and more stiff and springy *Fibres*, and is the *Gout* which I have been hitherto treating. All I can further add to what has been said, is, that under the Fit White Wines are more eligible than Red; because those part more readily with their Spirits, and are less astringent than these. And for the same Reason in the Intervals, the Red is preferable to the White: Tho' neither

ther of them, in either Case, be useful or necessary, but because Custom or Habit, which it is not safe to alter suddenly, has made them so. For in all the *Ottoman* Empire, where little Flesh Meat, and no Wine is us'd; and in *Spain*, where they use them very moderately; and among the wild Mountaineers in the *Northern* Countries; and the lower Rank of the People in every Country, where they can procure neither, there is little or no *Gout*. Rubbing the Part affected with a soft Hand, or warm Napkin, as strongly as the Patient can bear it, is the ready way to make the Humour perspire in the Fit. And Cold Bathing, and rubbing with a Flesh Brush, Morning and Night, are some of the most certain outward Means, to bring Strength and Nourishment into it, in the Intervals.

XXXIX. Having mention'd Cold Bathing, I am the more willing to set this so safe and universal a Mean, for the Recovery of the weaken'd Parts,

L

after

after a Fit of the *Gout*, in a clearer light; because a groundless Jealousy of the Danger of its throwing the *Gout* inwardly, has made it universally dis-us'd. Nothing made a greater Noise upon its first Restoration, and nothing cou'd have sunk lower in its Reputation since, than Cold Bathing: And it will always happen so in things fitted to the vulgar Capacity, when they are universally prescrib'd, without Distinction and without Choice. Those who know how greatly Foulness and Uncleanliness promote Epidemical, Pestilential and Infectious Distempers, can only tell what Cleanness contributes to Health. The *Eastern* People (whose Laziness, in other things, is owing to their Climate) have found Cold Bathing and Ablution so necessary to their Health, that they have made it a part of their Religion, as it is a Precept of a Religion of a nobler Extract, from whence they borrow'd it. If the modern Doctrine be true, as I really think it is, that the smallest *Fibres*, or those of the
last

last Division, in animal Bodies, be not open and pervious, but solid; then it may be affirm'd, that warm Water (I mean pure Element, endu'd with no Medical Principle) by the active Power of its Heat, must necessarily relax such *Fibres*. And that cold Water from the *Nitre*, which produces its Coldness, must necessarily contract them. The Tumour of the *Gout*, like other inflammatory Swellings, is owing to an Obstruction, or to the *Gouty* Humours flowing faster by the *Arteries*, than it can be receiv'd by the Veins; the Smallest or Capillary Vessels are thereby extended and stretch'd, beyond their natural Power of Restitution; so that when the *Gouty* Humour is spent by Perspiration, or driven into the Veins by the successive Stroaks of the Circulation; the Obstruction remov'd; and the Pain entirely gone off; the Vessels continue thus widen'd and stretch'd, beyond their Power of Restitution, for a long time after. And this is the sole Cause of the long and tedious Weakness on the Part

after the Fit is over ; which wou'd yet continue longer, did not the Coolness and Pressure of the Ambient Air , and the now sufferable Weight of the Cloathing , give the first Impulses to the *Fibres* towards their contracting themselves again. Now nothing in Nature can so readily or so certainly bring this about, as Bathing in cold Water : For the *Nitre* in the Water, which is the Cause of its Coolness ; and also the uniform equal Pressure upon the Part, which arises from its Gravity and Fluidity, concur to communicate to the *Fibres* a strong and lasting Impulse towards restoring themselves to their natural State of Contraction. And the *Gouty* Humour now being spent, and the Obstruction entirely remov'd, as is suppos'd, how can any such Humour be translated upon another part, by cold Bathing, more than if the Person had never had the *Gout*? Now to make this Remedy still more effectual, after a previous Course of cold Bathing, cold Pumping on the part, by the Force
of

of a Pump, or the Fall of Water from a Height, may be conveniently us'd: The wonderful Efficacy of which is no less certain here, than it is in White Swellings on the Joints, where, I think, it is a never failing Remedy. I am very well inform'd of the Case of a very considerable Person, who, for many Years before, being tormented with constant and uninterrupted Pains of the *Gout*, Summer and Winter, by daily Bathing in a Tub of cold Water, has, for these several Years by-past, brought them to regular and periodical Fits, at the Cardinal and Critical Seasons only; and of no longer Duration than usual. I know also an ingenious Physician, who, after a Fit of the *Gout*, goes daily into the cold Bath, till the part has recover'd its natural Strength, which constantly happens in much less time than it wou'd do otherwise. And many others, who are considerably strengthen'd, and preserv'd from catching Cold, by cold Bathing in the Intervals of the *Gout*; tho' this Practice is very cautiously

ously to be gone about by the old and weak.

XL. The *Nervous* or Flying Gout (both which I take to be the same, and to differ from the Windy Gout, which is nothing but a *Hypochondriacal* or *Hysterical* Symptom) is owing to the Weakness, Softness, or Relaxation of the *Nerves* of those Persons who labour under it. All the Solids of the Body are made up of small Threads or Filaments of different Natures and Textures. They are divided into the *Fleshy*, the *Nervous*, the *Membranous*, and the *Bony*; and make up the solid Substance of the whole Animal Body: But all of them agree in a greater or lesser Degree of Springiness or Elasticity. And it is observable, that some of the most perfect springy Bodies, are made of animal and vegetable Substances; such as Ivory, Ebony and Whalebone. Wherein the general Nature of Elasticity consists, or what is the particular Cause of the eminent Springiness of animal *Fibres*, is as hard

hard to explain as conceive ; which notwithstanding, is the noblest Instrument of all the Actions and Functions of an animated Body. All the Attempts hitherto made to discover the particular Nature of a *Contractile* and *Distractile* Animal Fibre, to me seem insufficient and conjectural. *Lewenhoeck* has discover'd, by his Glasses, that the smallest Fibre of an *Elephant* is not bigger than that of the smallest *Insect* : And if the modern System of Generation be just, to wit, That an Animal or Plant comes from another lesser one ; then Growth is nothing, but the unfolding the original *Membranes* and *Fibres* : And the Length of every Fibre is the same in the youngest, as in the full grown Animal or Plant. So Growth and Motion both, that is, the whole Business of the Animal Life, is owing to the Springiness of these *Fibres*. The best Resemblance I can make of them, is that of a long Hair, or small twisted Gut, which, when stretch'd to any length beyond its natural State, will restore

restore it self again to its former Dimensions. And in this Contraction and Restitution of an Animal *Fibre*, the greatest Mysteries of the whole Structure consist. As there are some People who have hard, gross, stiff Hair, with a strong Spring; so there are others, who have soft, fine, weak Hair, with a feeble Spring: And generally speaking, as the Hair is, so the Threads, Filaments and *Fibres* of the Body are. Those whose *Fibres* are soft, fine, weak and of a feeble Spring, are generally said to be of weak *Nerves*, and liable to *Nervous* Distempers. And here we may observe the Difference between more tense and stiffer *Fibres*, and more springy and elastick ones. All the *Fibres* of the Body are in a State of *Distension*, as is evident from the gaping Lips of Wounds. Two Persons may have *Fibres* of the same Degree of Springiness and Elasticity; and yet in their natural State, and original Formation, the *Fibres* of the one may be more stretch'd, bent and distracted, and consequently

more

more stiff and tense than those of the other; whereby the more stiff or tense *Fibres* making a greater Resistance, and being with more Difficulty stretch'd and widen'd, will give more Pain, when a gross Fluid passes thro' them, than less stiff or tense *Fibres* will. Which gives an Account why of two Persons, both of them of weak *Nerves*, the one shou'd have the *Gout*, the other be free from it. Persons of weak *Nerves* must necessarily have less Strength, a weaker Pulse and Digestion; a slower and more imperfect Circulation of the Fluids, and a less free and perfect Perspiration; and if they happen to indulge in strong Meats and generous Wines, they must become subject to *Hysteric*, *Hypochondriac* and *Cephalic* Disorders. But if, together with weak *Nerves*, a greater Degree of Tensity or Stiffness be join'd, under the same Circumstances, they will be liable to *Gouty*, together with the foremention'd Disorders. But by reason of the Natural Weakness and less Original Springiness of their *Ner-*

vous Fibres, the Fits of these *Gouts* will be less painful and more constant.

XLI. *Coroll.* From this Account of the *Nervous Gout* and other *Nervous Distempers*, 'tis plain, all Evacuations (except the most gentle) must be prejudicial in them. Gentle Vomits, as they cleanse the Stomach and Bowels, and principally as they free the *Nerves* from all extraneous Bodies, and increase the Perspiration, by the violent Convulsions and Contractions of the internal Muscles and Membranes; Blisters, as they open the Obstructions of the small Vessels, by their external, and thin the fizy Juices by their internal Efficacy; I say, both these Evacuations, may not only safely, but with great Advantage, be us'd in *Nervous Cases*. But all violent Purges and excessive Bleedings, are religiously to be abstain'd from, as encreasing the original Weakness. Purges in People of weak *Nerves*, in Chronical Cases, carry off a great part of the Nourishment of almost three Days.

Vomits,

Vomits, on the contrary, carry off only those Crudities, that send up to the Head and *Nervous* System, the noxious Fumes and Vapours that cause their Misery. Purges relax and weaken the *Fibres* of a natural and necessary Function, to wit, those of Digestion: Whereas Vomits can but weaken the Action of *Muscular Fibres*, less us'd, strong in themselves, and not so necessary to Concoction; as is evident from *Monsieur Chirac's* Experiment about Vomiting. Purges carry off little, but what wou'd otherwise pass off, in time, by the natural Course of the *Peristaltic* Motion; and generally leave behind them what wants the inverted Motion, as they found it. Whereas Vomits pump up those Crudities, that Nature it self wou'd (gladly, so to speak) throw up, by the same Organs, the same way Nature tends. *Lastly*, sour and acid Humours, lodg'd in the Stomach and Guts, must necessarily weaken both, more than either gentle Vomits, or Purges possibly can;

with this Difference tho', that a very gentle, natural, or artificial Purging, continu'd for any long time, in Persons of weak *Nerves*, shall both weaken the Person, and waste the *Muscular* Flesh. Whereas you shall find, after several Months daily Vomiting, in a Sea Voyage, a Day or two's Refreshment ashoar, restores the Person to a greater Degree of Alacrity and Strength than before: Whence it comes to pass, that Persons of weak *Nerves* are so much reliev'd and rais'd by Vomits; and, on the contrary, so much sunk and depress'd by rough and strong Purges in Chronical Cases. What farther is to be expected in such Cases, is to be done by a regular and strict Diet, fitted to the mere Necessities of Nature. Strengtheners of the Digestive Faculties, (and here the *Bark* and *Steel* claim the first place, as being the most certain Strengtheners of weak *Nerves*) gentle and constant Exercise, as encouraging the Perspiration: *Aromatic* and Spicy Bitters, Volatile and attenuating Medicines, and whatever
may

may be thought fit to nourish, comfort and support the Animal Functions.

XLII. Having had frequent occasion to mention the *Bark*, as being absolutely necessary to the Subject I treat; it may not be amiss to remove one Objection against it; and the only one I have ever heard or read made with any Shew of Reason. I have taken as much of it my self, and as often, and have prescrib'd it as freely as any of my Age, I believe; and never observ'd it, either in my self or others, do any Hurt, except when it has been injudiciously and improperly prescrib'd, and that in continu'd acute Cases only. The Objection is, that it often leaves behind it a bad Habit, a *Scorbutic*, *Cachectic*, or *Hectic* Constitution; bad *Lungs*, *Liver*, or *Stomach*; or some of the great *Viscera* spoil'd or corrupted. But the Mistake in this Objection lies here, to wit, that few Constitutions break, and seldom any of these great Organs become vitiated; but they begin with an
inter-

intermittent or periodical *Fever*. And these I have constantly observ'd to be of that kind, and approaching that Season, which *Sydenham* most judiciously distinguishes from *Vernal* ones, and calls *Autumnal Agues*; and are indeed symptomatical only, arising from beginning Obstructions in the whole Habit, or in these greater *Viscera*: where all Nature is at work, and the whole Organs labour and struggle to thin the sily Fluids, and to open the obstructed Bowels; but not being able to bring about this End, Nature succumbs after every Feverish Fit, thus excited, into a worse State. And even here too, the *Bark* does all its proper Office, in quenching, to wit, the violent *Paroxysms* of the *Fever*, which only can endanger the Life of the Patient: and allows time for other Medicines to act. But when the Habit is already broken, and the great *Viscera* already unsound; it cannot be blamed that it do's not restore these; nothing like that being expected from it, or ascribed to it. When the *Bark* has
 extin-

extinguish'd the Feverish Fits, which threaten Death to the Patient, a Relieve is obtain'd: in which, by deobstruent and attenuating Medicines, Health and Life may be secur'd. In relax'd *Nerves* of the *Primæ viæ*; in almost all sorts of *Nervous* and *Cephalic* Diseases depending on these; in all *Gouty* Disorders in the *Alimentary* Passages; in all *Nervous Gouts*; in all Intermittent and *Periodical* Distempers, or Pains whatsoever: 'tis preferable to any thing hitherto us'd; only in very cold Stomachs and Constitutions, I have found a Decoction of the *Indian Bark*, by some call'd *Elatheerium*, to be yet more effectual and strengthening; as it will also more readily remove the *Periodical* Disorders of such. But the *Peruvian Bark* I never found did any Hurt, but in acute continu'd Cases; where it runs into violent Purgings: And in the *Monthly Purgations* of the Sex, which sometimes it will obstruct; and therefore it ought not to be given without
Steel;

Steel; which ought also to be added, when it is given in Chronical Cases. It were to be wish'd only, in these Cases it gave the same Relief the second and succeeding times it does the first.

XLIII. I have formerly observ'd, that when the *Gout* becomes dispers'd over the whole Habit, or fix'd and settl'd on a particular Joint, *Mercurial Vomits* and *Purges* were absolutely necessary to dislodge it. But there is one Species of the *Gout* which miserably torments its Subjects, and yet yields not to that, or very rarely to any of the Methods in use; I mean the *Gout* on the Hip-Joint, when fix'd and constant, commonly call'd the *Sciatica*; and yet treated after the manner I'm to explain, never fails of a perfect Cure. The Foundation of the Method I had from the late *most Learn'd and Eminent Physician Doctor Archibald Pitcairn*; he having communicated it to me under no Restriction of Secrecy, I think my self oblig'd

oblig'd to publish it to the World, for the Benefit of the afflicted. I have us'd it with great Success these several Years, and I think have improv'd it in several Particulars of the Management; and so never fail of a perfect Cure, if the Distemper is a genuine *Sciatica*, tho' of many Years standing; and after having baffled all other Attempts. It consists in taking from one, two, three Drams, to half an Ounce (according to the Strength of the Patient's Stomach) of the Ætherial Oyl of *Turpentine* (that which comes off between the Spirit and Oyl, in drawing off the common Oyl of *Turpentine*) in triple the Quantity of Virgin Honey in a Morning fasting, for four, five, six, or eight Days at farthest, intermitting a Day now and then, as the Patient's Occasions require, or his Stomach suffers by it: In drinking, after it is down, large Draughts of Sack-Whey, to settle it on the Stomach, and carry it into the Blood: And lastly, in taking a proper Dose of *Matthew's Pills*

N

every

every Night, that Day the Medicine is swallow'd. This Course never fails to remove the Violence of the Pain, and to leave only a Weakness on the Part. To remove the grosser Remains, and strengthen the weaken'd Part, I order a Dram to two Drams of Flower of Brimstone, for some time, twice a Day, in a Tea Cup full of Milk. If through great Intemperance, or a violent Cold, the Patient relapses, I order the Repetition of the former Medicines for a Day or two, which commonly sets it a packing. And lastly, to strengthen the *Primæ Viæ*, and enliven the Spirits, I advise *Bath* or *Spaa* Waters with *Steel*, and Bitters with *Volatiles*; and perhaps pumping on the Part affected, which never fails to perfect the Cure in a genuine *Sciatic*. And I hope it may be of some use, to have a Method of Cure for this Distemper, so plainly laid down, so effectual in it self, so easy to the Patient, and so restorative of his Constitution

tution in general, in respect of those Tortures and the nauseous Load of Medicines the afflicted are forc'd to go through in common Practice. The great Efficacy of this Course consists in the *Ætherial Oyl*: It has been common to prescribe a few Drops of the Oyl of *Turpentine* in cold *Rheumatisms* and fix'd Pains on the Joints: But this seldom proves effectual in the *Sciatica*: Whereas this *Ætherial Oyl*, having all the Penetration of the *Spirit*, together with the Softness and Detergency of the finest *Balsam*, but chiefly being of such Lightness, that any Quantity of it may be given, that can stay on the Stomach, or be kept down by frequent Draughts of any soft Liquor, especially Sack-Whey: which by its Milkiness uniting readily with the *Ætherial Oyl*; Penetrates into the least and finest Vessels, and the most secret Recesses of the *Animal Oeconomy*; opens their Obstructions; dissolves the glutinous Gellies in the Joints; clean-

ses the insides of the *Tubes*, and makes all pass by Perspiration. The Rule whereby to accommodate the Dose to the Patient, is to order it so, that it mayn't be so much as to recoil upwards; to prevent which, a large Quantity of Sack-Whey is order'd: And it seldom moves above once downwards; but lest it shou'd go farther, in the subsequent Doses, the Pills take place.

XLIV. As to *Topicks* or outward Applications, to ease or relieve the Part affected in a Fit of the *Gout*, they are dangerous, unless discreetly manag'd. In the frequently mention'd *Cardinal Fits* of *Spring* and *Autumn*, when, through Ignorance or Neglect of the Methods hitherto laid down, they shall happen *Regular*; I would by no means encourage any such outward Application of what kind soever hitherto discover'd, except in the very last Extremities of Pain. In the *Regular Gouts*
at

at those Seasons, these Fits are not to be tamper'd with in any manner, but in the way formerly directed. For the Habit being loaded with the *Gouty* Humour and Salts, must be allow'd a time to discharge it self, and drive them out of the Body; otherwise Life must be endanger'd by a *putrid* or *malignant* Fever: And these being the Seasons when the Humours naturally undergo some Alterations; if the *Gout* be thrown upon the extreme Parts, Nature must not be disturb'd in her Operations: But whatever is to be done, is to be directed to encourage and fortify her in her own way; and to assist her to expel the last Breathings of this Humour upon the Parts most remote from the Head and Heart, the two Sources of the Motion of all the Fluids: (which has been the Intention of all the Methods and Medicines prescrib'd in this Treatise:) For thus the Blood will be purify'd; the Spirits reliev'd from their Oppression; the Joints render'd pliable, and

and all the natural Functions set at liberty. When these Fits are over, any thing that is just and probable, and attended with no Danger, for lessening the future Fits, and lengthening their Intervals, may be try'd. But in the Fits falling out of these Seasons; in the tedious and lingering Fits of those broken with Age, and Habitual *Gouts*; a well chosen outward Application may be safely and successfully us'd; especially, if at the same time gentle Stomachic Purges be administred; or a Blister on the Ancles or Wrists be open'd, to let out what may be repell'd by the *Topick*; and thereby to secure the noble Organs. For let Pretenders brag what they will, I know of no outward Application, hitherto discover'd, but what by its Sluggishness stops the natural Perspiration: Or by its Activity counter-acts the Direction of the Circulation; and consequently repels the Humour in some degree or other. But by thus opening a Way for the Humours

mours to pass elsewhere, the Part affected may be much reliev'd by proper Applications. *Fuller* and *Bates* give the Forms of some; and Doctor *Pitcairn* was exceeding fond of, and held as a great Secret, that which himself has publish'd in the last Edition of his Treatises, which is made of two Ounces of white *Arsenick*, and six Ounces of *Live-Lime Stone*, put into four Quarts of boiling Water, set in a warm place twenty four Hours: Stoups of this apply'd warm to the Part, he had found effectual and safe. That which I wou'd rather recommend is Stoups of a Decoction of *Butterburr*, *Ground-Pine* or *Camomel* Flowers, or any *Aromatic* bitter Plant in Milk; or a *Pultis* of the Head of a Sack-Whey Posset, or any such soft and active Application, to moisten, soften, relax and open at first; and towards the Decline of the Fit a *Mithridate* or *Venice Treacle* Plaister; the *Emplastrum Stomachicum Magistrale*, or the like, to strengthen, warm and comfort;

comfort; especially if with these last a stomachic warm Purge be join'd. As to *Symptomatic Gouts*, there can be no place for them, in the Doctrine hitherto laid down. For on the Supposition, that the *Gout* is owing to a particular Texture and Conformation of Parts; where that Texture and Conformation of Parts is, and the Materials for forming the *Gouty* Humour is supply'd, there the *Gout* must necessarily be, without the Concurrence of any other Distemper: And where these are not, there it cannot be, let the Person be subjected to what other Distemper soever. And if a Person be subjected to two Distempers, in the Cure of the one, due regard is to be had to the Cure of the other. What has been said is all I intend at present on this Subject.

XLV. For a concluding Observation, we shall take notice, as it is only the *Rich*, the *Lazy*, the *Voluptuous*,
who

who suffer most by the *Gout*: (I mean *Acquir'd Gouts*, and those hereditary ones enrag'd by *Luxury*) so those only, who have spent their Life-time under its Tortures best can tell, what astonishing Miseries *Wealth* and *Vice* bring upon Human Kind! When the *Gouty* Humour has seiz'd upon all the *Noble Principles* of Life, when it has broken, subdu'd and obstructed all the *fine Pipes*, and slender Passages, in whose Openness and Soundness all the *Exquisite Sensations*, all the *Delicate Usages* of the *Animal Faculties* consist. When nothing but Pain, and melancholy, frightful Ideas, horrible Dreams and black Despair remain; who wou'd not have parted with the *Richest Delicacies*, the most *Delicious Wines*, and the most *Enticing Vices*, for a plain, simple Diet, an useful laborious Life, Freedom from Pain, and a good *Conscience*? TEMPERANCE only, Divine, Innocent, Indolent and Joyous *Temperance* can Cure or effectually

O

(98)

fectually Relieve the Gout. For let
Us, or our Brethren the Quacks, brag
what we will,

*Tollere Nodosam nescit Medicina Po-
dagram.*



F I N I S.



